AMERICAN MUSEUM NOVITATES

Number 1030 — Published by THE AMERICAN MUSEUM OF NATURAL HISTORY New York City — May 29, 1939

NEW AFRICAN DOLICHOPIDAE AND DROSOPHILIDAE (DIPTERA)

By C. H. Curran

Five new species from Africa are described in the following pages. The types are in The American Museum of Natural History.

Dolichopidae

Hercostomus Loew

The following keys include the species known from the Ethiopian region.

Males

1.—All the coxae blackish in ground color..... ..... *melanolepis* Bezzi.
Anterior coxae yellowish..... 2.
2.—Apical segment of front tarsi white..... 3.
Anterior tarsi black from apex of first segment..... 4.
3.—Apical three segments of front tarsi white... ..... *perturbus* Curran.
Only the apical segment of front tarsi white..... *nectarophagus* Curran.
4.—Apical three segments of posterior tarsi white in front..... 5.
Posterior tarsi black, not white in front ..... *dimidiatus*, new species.
5.—Apical three segments of posterior tarsi white and strongly broadened..... ..... *eronis* Curran.
Apical segments of posterior tarsi but little broadened and silvery only in front..... ..... *argyropus* Loew.

Females

1.—Posterior crossvein bordered with brown.... ..... *muscaria* Speiser.
Posterior crossvein not bordered with brown ..... 2.
2.—Anterior coxae yellow..... 3.
Anterior coxae blackish.. *melanolepis* Bezzi.
3.—Abdomen with yellow lateral spots or yellow bands..... 4.
Abdomen greenish, the venter sometimes partly yellow..... 5.
4.—Base of abdomen luteous, the apices of the second and third segments dark colored.. ..... *perturbus* Curran.
Second and third segments with yellow, rounded lateral triangles..... ..... *nectarophagus* Curran.
5.—Posterior tarsi yellow in ground color except at the apex..... 6.
Posterior tarsi wholly black.. *eronis* Curran.
6.—Posterior tibiae with the apex considerably blackened..... *argyropus* Loew.
Posterior tibiae wholly yellow, the apex at most slightly brown..... *disjectus* Curran.

Hercostomus dimidiatus, new species

A rather large species, readily recognized by the white haired apical segment of the middle tarsus. Length, 5 mm.

Male.—Face white, very narrow and with parallel sides on the lower half, the upper half with the sides diverging above; front metallic blue and violaceous, thinly clothed with ochraceous pollen. Occiput yellowish cinereous pollinose, the upper orbital cilia black, those on more than the lower half, white. Palpi small, brown; proboscis brown. Antennae black, the first segment reddish yellow; arista black, practically bare.

Mesonotum and scutellum dark green, rather thinly brownish pollinose, the sides and pleura thickly clothed with cinereous pollen; six pairs of dorsocentrals; scutellum with one pair of strong bristles and three or four pairs of marginal hairs, the disc with five or six hairs. Propleural hair white, the bristle black.

Legs reddish yellow; middle coxae brown; tarsi black with the basal half or more of the basal segment reddish yellow in ground color, the posterior femora with a brown apical spot above, the tips of the middle and posterior tibiae black; apical segment of the middle tarsi yellow in front and appearing silvery from some views; hair black except on apical segment of middle tarsi.

Wings cinereous hyaline, tinged with brown in front of the third vein, the veins blackish except at the base of the wing. Squamae and halteres reddish yellow, the former with black cilia.

Abdomen cupreous; large spots on the sides of the segments and the broad apex of the sixth segment white pollinose. Genitalia moderately large, the basal section cinereous white pollinose; lamellae reddish yellow, with yellowish hair, the outer half with black bristles on the anterior margin, in shape each lamella is crescentic, wider basally, the outer end rather acute. Venter black, with cinereous pollen. Hair black.

Types.—Holotype, male, Inyanga, Southern

Rhodesia, November, 1933, and paratype, male, Salisbury, Southern Rhodesia, February 19, 1927 (A. Cuthbertson).

Drosophilidae

LEUCOPHENGA MIK

The following key includes the described Ethiopian species belonging to this genus. Since the key is based mostly upon descriptions it must be used with care, but it is hoped that it may prove to be of assistance in the identification of the species.

1.—Wings with one or more brown spots.....2.
Wings uniformly colored or almost so, the costal border sometimes somewhat brownish.....4.
2.—Bristles of the thorax black.....3.
Bristles of the thorax yellowish.....*flaviseta* Adams.
3.—Wings with brown median crossband, apical and sub-basal spots and the anterior crossvein bordered with brown.....*cuthbertsoni* Malloch.
Wings darkened in front and without clouds on the crossveins...*flavopuncta* Malloch.
4.—Palpi yellowish.....5.
Palpi black.....10.
5.—Third antennal segment reddish or yellowish, often slightly and gradually darkened apically but the colors not contrasting.6.
Third antennal segment conspicuously brown above or on the broad apex...11.
6.—Thorax rather silvery-white from anterior view.....*mutabilis* Adams.
Thorax not appearing silvery-white.....7.
7.—Apical fourth of scutellum whitish.....8.
Scutellum wholly rusty reddish.....*mansura* Adams.
8.—Fourth abdominal segment shining black, usually with pair of small orange spots at base; halteres reddish yellow; occiput black above.....9.
Apical abdominal segments with black posterior borders expanding in the middle; knob of halteres brown; occiput black.....*proxima* Adams.
9.—Second abdominal segment wholly yellow.....*chapini*, new species.
Second abdominal segment black at the sides.....*ambigua* Kahl.
10.—Mesonotum shining dark brown.....*goodi* Kahl.
Mesonotum shining reddish yellow.....*palpalis* Adams.
11.—Two humeral bristles.....*basilaris* Adams.
One humeral bristle.....12.
12.—Abdomen shining reddish, the broad apices of the third to fifth segments and a median vitta on these segments, shining black.....*zonata*, new species.
Abdomen opaque black, the segments yellow on the sides and base.....*apicifera* Adams.

Leucophenga chapini, new species

Shining rusty yellow, the abdomen black with the first and second segments yellow, the first with a transverse black triangle on either side. Length, 3 mm.

MALE.—Head yellowish, the occiput black on the upper half except along the orbits; front and face much narrower than either eye; front dull, with a large, rectangular shining area in front of the ocelli; anterior reclinate bristle situated closer to the proclinate than to the upper reclinate; hair on anterior part of front sparse, black; ocellars long; postocellars short; a long orbital bristle behind the cheeks. Face and cheeks with whitish pollen, the cheeks very narrow; facial carina weak, limited to the upper half. Proboscis and palpi dull reddish, the palpi of moderate length and width, bearing black hairs. Antennae dull reddish; arista black, with eight rays above and four below.

Thorax yellowish, the mesonotum and scutellum rusty reddish yellow, the broad apex of the scutellum whitish, preceded by a brown fascia; from anterior view the mesonotum is whitish pollinose; two humeral bristles, the outer one very weak; prescutellar acrosticals strong; two sternopleurals.

Legs yellowish, the hair black.

Wings cinereous hyaline, rather pointed; second vein slightly curved forward apically; apex of fourth vein very weak; second costal section two and a half times as long as the third section. Squamae brownish yellow; halteres reddish yellow.

Abdomen shining; first segment yellow with a large, transverse blackish spot on either side; second segment very narrow, pale yellowish; third segment shining black, sometimes with the base reddish yellow and with a white basal triangle on either side; fourth and fifth segments shining black, the fourth usually with a pair of pale orange basal spots. Venter reddish yellow. Hair wholly black

TYPES.—Holotype and two paratypes, males, Lukolela, Belgian Congo, January 13, 1931 (J. P. Chapin).

Leucophenga zonata, new species

Rusty reddish yellow, the abdomen with black fasciae. Length, 2.5 mm.

FEMALE.—Head yellowish, the middle of the occiput brown above the neck; front and face decidedly narrower than either eye. Front with sparse, fine hairs anteriorly; anterior reclinate frontal situated much closer to the proclinate than to the upper reclinate; ocellars moderately long; postocellars weak. Face and cheeks thinly white pollinose; cheeks linear; facial carina very low and broad; one pair of vibrissae. Proboscis and palpi reddish yellow; palpi strongly broadened, bearing one or two setulae. Antennae reddish, the third segment brown on the upper half except basally; arista with eight long rays above and three below.

Thorax rusty yellowish, the mesonotum

slightly darker and thinly white pollinose when viewed from in front; hair and bristles brown, appearing reddish in some views; apex of scutellum apparently whitish. One humeral bristle; two sternopleurals; presuturals moderately long.

Legs yellowish; hair and bristles black.

Wings cinereous hyaline; second costal section almost three times as long as the third; posterior crossvein situated more than its length from the wing margin. Squamae reddish yellow. Halteres reddish yellow, the apex of the knob brown.

Abdomen shining, rusty reddish, the broad apices of the third to fifth segments black, the fourth and fifth segments with a median black, vitta. Venter reddish yellow. Hair brown, appearing reddish in some views; bristles black.

HOLOTYPE.—Female, under fig trees, Salisbury, Southern Rhodesia, April, 1927 (A. Cuthbertson).

ZAPRIONUS COQUILLETT

The following key includes the known species belonging to this genus. According to Malloch the genus is known only from Africa, other species having been erroneously assigned to *Zaprionus*.

1.—Mesonotum with a pair of conspicuous white vittae.....2.
Mesonotum brown, with cinereous spots, not vittate; front without entire lateral white vittae.....*punctatus*, new species.
2.—Anterior femur with a digitate process beyond the middle....*tuberculatus* Malloch.
Anterior femur with several setigerous tubercles below or merely with bristles..3.
3.—Anterior femur bearing four to six setigerous tubercles below, the tubercles each with an anteriorly directed apical spur.....*vittiger* Coquillett.
Anterior femur without tubercles below, the bristles arising from at most a very slightly convex base.....*tenor*, new species.

Zaprionus punctatus, new species

Readily recognized by the brown, cinereous spotted thorax and scutellum. Length, 3 mm.

FEMALE.—Head brown or brownish red; front slightly wider than one eye, on each side with a cinereous stripe lying between the orbital bristles, each of which arises from a black spot; ocellar triangle surrounded by a cinereous triangle which extends more than halfway to the antennae; front with coarse, short hair on the anterior half; anterior reclinate bristle situated nearer to the upper reclinate than to the proclinate; ocellars long; postocellars weak. Cheeks one-third as wide as the eye-height. A single pair of oral vibrissae. Facial carina broad and high, the lower two-fifths less prominent. Proboscis brownish red. Palpi reddish, with a moderately strong apical bristle and two or three hairs. Antennae reddish, the third segment and arista brown.

Mesonotum reddish brown; cinereous on the anterior border, the pale pollen with a tendency to form vittae toward the sides, where the spots may be connected, a pair of irregular transverse gray spots near the middle of the mesonotum and one at each side in front of the scutellum. The pale spots are all irregular and there is a tendency for the discal and lateral to be more or less connected by slender prolongations; the disc of the mesonotum, except for the spots mentioned, is almost uniformly reddish brown; there is a dark brown spot on each side behind the base of the wings. Scutellum brown, the base with a pair of transverse spots and a more or less M-shaped preapical cinereous spot which has a slight tendency to connect with the basal spots. Pleura grayish, with three rather narrow brown vittae, the upper one extending along the upper edge from the humeri to the base of the wings, the median one extending from the front margin almost to the posterior spiracle, the lower limited to the upper border of the sternopleura; two strong sternopleurals.

Legs reddish yellow; posterior four femora with weak preapical brownish band; posterior four tibiae with sub-basal brownish band and another at the apical third; apical two segments of the tarsi brown. Anterior tibiae with five or six posteroventral bristles.

Wings hyaline; a small brown spot covers the apex of the second vein and there is a smaller and sometimes paler spot on the apex of the third vein. Halteres pale yellowish.

Abdomen yellow and brown; first and second segments yellow with large brown lateral triangles; third similarly colored but with larger lateral spots and a rather orbicular median spot; fourth segment similar but the lateral spots connecting with the median; fifth and sixth segments brown with yellow apices. The lateral spots are situated on the posterior border of the segments while the median spots are on the anterior border, and the lateral spots extend over the sides of the abdomen, reaching to the edges of the tergites. Sternites yellowish. Hair black.

TYPES.—Holotype, female and two paratypes, Darwendale, Lomagundi, Southern Rhodesia, August 13 and 15, 1918.

Zaprionus tenor, new species

Similar to *vittiger* Coquillett, but with simple anterior femora. Length, 3 to 3.5 mm.

MALE AND FEMALE.—Head reddish yellow in ground color. Front slightly wider than either eye, reddish to brownish red, with lateral and median white stripes bordered with brown; anterior reclinate bristle situated very slightly nearer to the upper reclinate than to the proclinate bristle; ocellars moderately long; postocellars short; front with sparse black hair on the anterior half. Cheeks about one-sixth as

wide as the eye-height; facial carina very prominent below; one pair of vibrissae. Proboscis and palpi reddish yellow, the latter broad, bearing an apical bristle and several hairs. Antennae brown, the third segment more or less broadly reddish below, the second crossed by a continuation of the lateral white frontal vitta.

Mesonotum and scutellum brownish red, with a pair of white vittae extending the whole length of the mesonotum and ending immediately outside the base of the apical scutellars, the mesonotum with a lateral white vitta, the white stripes all narrowly edged with brown. Pleura rusty reddish yellow, with a pale stripe extending from above the front coxae to the posterior spiracle.

Legs reddish yellow, black haired, the anterior femora with five or six posteroventral bristles.

Wings cinereous hyaline, the veins luteous. Halteres reddish yellow.

Abdomen reddish yellow, the apices of the segments more or less brownish or ferruginous.

TYPES.—Holotype, male, allotype, female, and three males and one female, paratypes, Akenge, Congo, November, 1913 (Lang and Chapin).

These specimens were recorded by me in the report on the Diptera of the American Museum Congo Expedition as *vittiger* Coquillett but, as Malloch has pointed out[1] (apparently after an examination of the type of *vittiger*), that species has setigerous tubercles on the anterior femora. The single female from Stanleyville was properly identified as *vittiger*.

[1] 1932, Stylops, I, p. 11.